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<b>TRANSMITTAL FORM</b>  (to be used for all correspondence after initial filing)	Application Number	10/815,162	
	Filing Date	03/31/2004	
	First Named Inventor	Stephen Wu	
	Art Unit	Unknown	
	Examiner Name	Unknown	
Total Number of Pages in This Submission	7	Attorney Docket Number	BP 3112

ENCLOSURES (Check all that apply)		
<input type="checkbox"/> Fee Transmittal Form	<input type="checkbox"/> Drawing(s)	<input type="checkbox"/> After Allowance communication to Technology Center (TC)
<input type="checkbox"/> Fee Attached	<input type="checkbox"/> Licensing-related Papers	<input type="checkbox"/> Appeal Communication to Board of Appeals and Interferences
<input type="checkbox"/> Amendment/Reply	<input type="checkbox"/> Petition	<input type="checkbox"/> Appeal Communication to TC (Appeal Notice, Brief, Reply Brief)
<input type="checkbox"/> After Final	<input type="checkbox"/> Petition to Convert to a Provisional Application	<input type="checkbox"/> Proprietary Information
<input type="checkbox"/> Affidavits/declaration(s)	<input type="checkbox"/> Power of Attorney, Revocation Change of Correspondence Address	<input type="checkbox"/> Status Letter
<input type="checkbox"/> Extension of Time Request	<input type="checkbox"/> Terminal Disclaimer	<input checked="" type="checkbox"/> Other Enclosure(s) (please identify below):
<input type="checkbox"/> Express Abandonment Request	<input type="checkbox"/> Request for Refund	1) Transmittal Letter; 2) Original Power of Attorney from Assignee; 3) Original Cert. under 37 C.F.R. 3.73(b) Stmt.; 4) Auth. Ltr. for D. Henderson sig.; 5) Copy of Assignment; 6) Return Receipt Postcard
<input type="checkbox"/> Information Disclosure Statement	<input type="checkbox"/> CD, Number of CD(s) _____	
<input type="checkbox"/> Certified Copy of Priority Document(s)	Remarks	
<input type="checkbox"/> Response to Missing Parts/Incomplete Application	Transmittal to insert Power of Attorney and Certificate Under 37 C.F.R. 3.73(b) Statement in the file for the above-referenced application.	
<input type="checkbox"/> Response to Missing Parts under 37 CFR 1.52 or 1.53		

SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT	
Firm or Individual name	JAMES A. HARRISON
Signature	
Date	May 19, 2004

CERTIFICATE OF TRANSMISSION/MAILING			
I hereby certify that this correspondence is being facsimile transmitted to the USPTO or deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on the date shown below.			
Typed or printed name	SHERRY L. WOLF MCWHINNIE		
Signature		Date	May 19, 2004

This collection of information is required by 37 CFR 1.5. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.



**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**  
**(Attorney Docket No. BP 3112)**

In the Application of:  
Stephen Wu

Serial No.: 10/815,162

Filed: 03/31/2004

For: Low-Noise Frequency Detector

§ Group Art Unit: Unknown

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Examiner: Unknown

**CERTIFICATE OF MAILING UNDER RULE 8**

I hereby certify that this correspondence is being deposited in the United States Mail under 37 C.F.R. §1.8 with sufficient First Class Postage and is addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on May 19, 2004.

By: 

Sherry L. Wolf MWhinnie

**TRANSMITTAL LETTER**

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Dear Sir:

Please insert the enclosed *Power of Attorney from Assignee* and *Certificate Under 37 C.F.R. § 3.73(b)* in the file for the above-referenced application.

In addition to the aforementioned, please also find enclosed the following

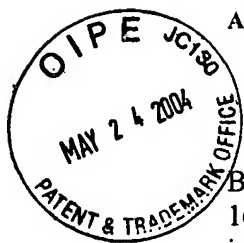
- 1) Copy of authorization letter for Dee Henderson signature authority
- 2) Copy of Assignment document
- 3) Return Receipt Postcard

If you have any questions, please feel free to call the undersigned attorney.

Date: May 19, 2004

By: 

James A. Harrison, Reg. 40,401  
**Garlick Harrison & Markison, LLP**  
P.O. Box 670007  
Dallas, Texas 75367  
(214) 902-8100 (Office)  
(214) 902-8101 (Fax)



### POWER OF ATTORNEY FROM ASSIGNEE

Broadcom Corporation, a California corporation having a principal place of business at 16215 Alton Parkway, Irvine, California 92618-7013, is assignee of the entire right, title and interest for the United States of America (as defined in 35 U.S.C. § 100), by reason of an Assignment to the Assignee executed on Mar. 31, 2004 of an invention known as **LOW-NOISE FREQUENCY DIVIDER** (Attorney Docket No. BP 3112), which is disclosed and claimed in a patent application of the same title by the inventor Stephen Wu (said application filed on Mar. 31, 2004 at the U.S. Patent and Trademark Office, having Application Number 10/815,162).

The Assignee hereby appoints the U.S. attorneys associated with Garlick, Harrison & Markison, LLP to prosecute this application and any continuation, divisional, continuation-in-part, or reissue application thereof, and to transact all business in the U.S. Patent and Trademark Office connected therewith, such attorneys currently being: Bruce E. Garlick, Registration No. 36,520, James A. Harrison, Registration No. 40,401, Timothy W. Markison, Registration No. 33,534, and Shayne X. Short, Registration No. 45,105. The Assignee hereby grants said attorneys the power to insert on this Power of Attorney any further identification that may be necessary or desirable in order to comply with the rules of the U.S. Patent and Trademark Office.

Send correspondence to:

GARLICK, HARRISON & MARKISON, LLP  
P.O. Box 670007  
DALLAS, TEXAS 75367.

Direct phone calls to James Harrison at (214) 902-8100.

FOR: Broadcom Corporation

SIGNATURE: \_\_\_\_\_

BY: \_\_\_\_\_

Dee Henderson

Manager, Intellectual Property Portfolio

TITLE: \_\_\_\_\_

DATE: \_\_\_\_\_

**Certificate Under 37 CFR 3.73(b)**

Applicants:

Stephen Wu

Entitled: **LOW-NOISE FREQUENCY DIVIDER**

Application No.

Filing Date:

**Broadcom Corporation**

(Name of Assignee)

**a, California Corporation**

(Type of Assignee)

states that it is :

1. ☒ the assignee of the entire right, title, and interest; or  
 2. ☐ an assignee of an undivided part interest

in the patent application/patent identified above by virtue of either :

- A. ☒ An Assignment for the inventor(s) of the patent application/patent identified above. The assignment was recorded in the Patent and Trademark Office at Reel \_\_\_\_\_, Frame \_\_\_\_\_, or for which a copy thereof is attached.

OR

- B. ☐ A chain of title for the inventor(s) of the patent application/patent identified above to the current assignee as shown below:

1. From \_\_\_\_\_ To: \_\_\_\_\_  
 The document was recorded in the Patent and Trademark Office at Reel \_\_\_\_\_, Frame \_\_\_\_\_, or for which a copy thereof is attached.
2. From \_\_\_\_\_ To: \_\_\_\_\_  
 The document was recorded in the Patent and Trademark Office at Reel \_\_\_\_\_, Frame \_\_\_\_\_, or for which a copy thereof is attached.
3. From \_\_\_\_\_ To: \_\_\_\_\_  
 The document was recorded in the Patent and Trademark Office at Reel \_\_\_\_\_, Frame \_\_\_\_\_, or for which a copy thereof is attached.

☐ Additional documents in the chain of title are listed on a supplemental sheet.

- ☒ Copies of assignments or other documents in the chain of title are attached.  
 [NOTE: A separate copy (i.e., the original assignment document or a true copy of the original document) must be submitted to Assignment Division in accordance with 37 CFR Part 3, if the assignment is to be recorded in the records of the PTO. See MPEP 302-302.8]

The undersigned (whose title is supplied below) is empowered to act on behalf of the assignee.

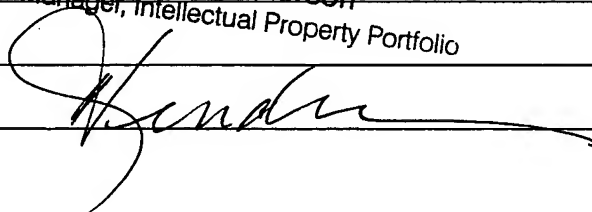
Date: \_\_\_\_\_

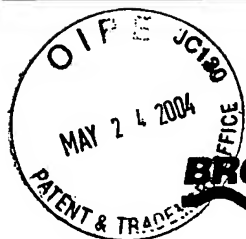
Name: \_\_\_\_\_

Title: \_\_\_\_\_

Signature: \_\_\_\_\_

**Dee Henderson**  
 Manager, Intellectual Property Portfolio



**BROADCOM CORPORATION**  
16215 Alton Parkway  
Irvine, California 92618

Phone: 949-450-8700  
Fax: 949-450-8710

May 20, 2003

To whom it may concern:

I, Henry Samueli, hereby authorize Dee Henderson, Intellectual Property Portfolio Manager, to execute documents relating to US and foreign patent and trademark matters on behalf of Broadcom Corporation and/or its subsidiaries.

Henry Samueli, Ph.D.  
Chief Technical Officer and Co-Chairman

## ASSIGNMENT

**WHEREAS**, the undersigned inventors, hereinafter called the "Assignors", have invented a new and useful invention entitled:

### LOW-NOISE FREQUENCY DIVIDER

for which reference a full description is here made in an application for Letters Patent of the United States filed herewith.

**WHEREAS**, **Broadcom Corporation** , a USA company having a principal office and place of business at, 16215 Alton Parkway Irvine California 92618-7013 hereinafter called the "Assignee", is desirous of acquiring the entire right, title and interest in and to said invention, the application above identified, and in, to and under Letters Patent which may be obtained for said invention, as hereinafter more fully set forth;

**NOW, THEREFORE, TO ALL WHOM IT MAY CONCERN**, be it known that for valuable legally sufficient consideration, the receipt of which by the Assignors from the Assignee is hereby acknowledged, the Assignors have sold, assigned and transferred, and by these presents do sell, assign and transfer unto the Assignee, its successors and assigns, the entire right, title and interest in and to the invention and the application herein above identified, and all Letters Patents that may issue for the said invention, and all division, reissues, substitutions, continuations, and extensions thereof, to have and to hold for the sole and exclusive use and benefit of the Assignee, its successors and assigns to the full end of the term for which any and all of said Letters Patents for the said invention may issue.


**FURTHER**, be it known that the Assignors have sold, assigned and transferred, and by these presents do sell, assign and transfer unto the Assignee, its successors and assigns, the entire foreign rights to the invention disclosed in said application, in all countries of the world, including the right to file applications and obtain patents under the terms of the International Convention, and further agrees to execute any and all patent applications, assignments, affidavits, and any other papers in connection therewith necessary to perfect such patent rights.

And the Assignors do hereby covenant and agree, for themselves and their legal representatives, that they will assist the Assignee in the prosecution of the application herein identified; in the making and prosecution of any other applications for Letters Patent that the Assignee may elect to make covering the invention herein identified, as herein before set forth, including any application for reissue, application for reexamination, application for foreign patent rights, or any proceeding in the United States Patent and Trademark Office affecting the invention, investing in the Assignee exclusive title in and to all such other applications and Letters Patent; and in the prosecution of any interference which may arise involving said invention, or any application or Letters Patents herein contemplated; that they will promptly execute and deliver to the Assignee any and all additional

papers and make an lawful oaths which may be requested by the Assignee to fully carry out the terms of this assignment; and further that they will communicate to Assignee, or to its successors, assigns, and legal representatives, and facts known respecting said invention, and at the expense of the Assignee, testify in any legal proceedings, and generally do everything possible to aid the Assignee, its successors, assigns and nominees to obtain and enforce proper patent protection for said invention in all countries.

And the Commissioner of Patents and Trademarks is hereby authorized and requested to issue all Letters Patent to the Assignee in accordance with the terms of the assignment.

IN TESTIMONY WHEREOF, the Assignors have hereunto set their hands on the date indicated below.

 _____ Stephen Wu	3-31-04 _____ date	_____ date
_____ date	_____ date	_____ date
_____ date	_____ date	_____ date

BEST AVAILABLE COPY